

# TA-F235R

## SERVICE MANUAL

*AEP Model  
UK Model  
E Model  
Australian Model*



### SPECIFICATIONS

#### Amplifier

Continuous RMS power output (both channels driven simultaneously)  
Except for Germany

|                        |        |             |
|------------------------|--------|-------------|
| DIN, 1 kHz             | 8 ohms | 40 W + 40 W |
| 20 Hz – 20 kHz (0.03%) | 8 ohms | 30 W + 30 W |

#### Germany

|                        |        |             |
|------------------------|--------|-------------|
| DIN, 1 kHz             | 4 ohms | 40 W + 40 W |
| 20 Hz – 20 kHz (0.05%) | 4 ohms | 30 W + 30 W |

#### Input

| Input jack                      | Jack type | Sensitivity | impedance  |
|---------------------------------|-----------|-------------|------------|
| PHONO (MM)                      | Phono     | 2.0 mV      | 50 kilohms |
| TUNER, CD, DAT/TAPE 1<br>TAPE 2 | Phono     | 150 mV      | 50 kilohms |

#### S/N

|                                 |        |
|---------------------------------|--------|
| PHONO (MM)                      | 70 dB  |
| TUNER, CD, DAT/TAPE 1<br>TAPE 2 | 100 dB |

#### Output

| Output jack | Jack type         | Voltage/impedance                         |
|-------------|-------------------|-------------------------------------------|
| REC OUT     | Phono jack        | Voltage 450 mV impedance 1 kohm           |
| HEADPHONES  | Stereo phono jack | Accepts low and high impedance headphones |

#### Tone controls

|        | Response         | Turnover frequency |
|--------|------------------|--------------------|
| BASS   | ± 10 dB (100 Hz) | 400 Hz             |
| TREBLE | ± 10 dB (10 kHz) | 4 kHz              |

Harmonic distortion Less than 0.008% at 10 W output  
Intermodulation (IM) distortion (60 Hz : 7 kHz = 4 : 1)  
Less than 0.008% at 10 W output  
Frequency response PHONO: RIAA equalization curve  
± 0.5 dB  
TUNER, CD, DAT/TAPE 1, TAPE 2:  
7 Hz – 100 kHz ± $\frac{3}{2}$  dB  
Residual noise Less than 170  $\mu$ V (network A)  
Damping factor 50 (8 ohms, 1 kHz)

#### General System

Preamplifier: Low-noise, equalizer amplifier

Power amplifier: Pure-complementary SEPP OCL power amplifier with all stages directly coupled

Power requirements Model for UK, Australian:  
240 V AC, 50/60 Hz  
Models for European countries:  
220 V – 230 V AC, 50/60 Hz  
Models for other countries: 120 V  
220 V or 240 V AC adjustable, 50/  
60 Hz

Power Consumption Model for Scandinavian countries,  
Switzerland, Spain and Portugal  
100 W  
Model for other European countries  
100 W  
Model for other countries  
100 W

Dimension Approx. 430 × 115 × 310 mm (w/h/d)  
(17 × 4 $\frac{1}{2}$  × 12 $\frac{1}{8}$  inches)

Weight Approx. 5.0 kg (13 lb 14 oz)

Supplied accessories Remote commander RM-S312 (1)  
Sony SUM-3 (NS) batteries (2)

The above values are measured at 230 V AC. (AEP model)

Design and specifications are subject to change without notice.

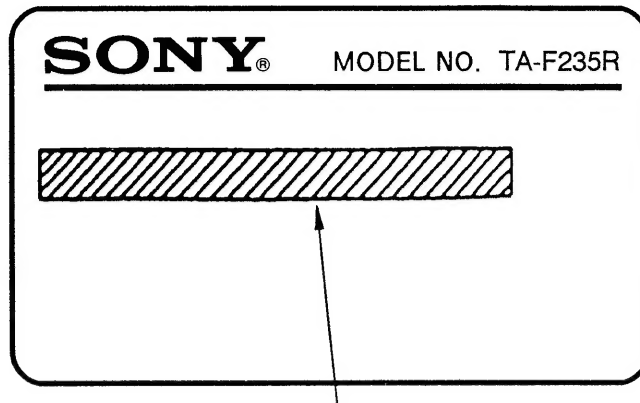
**INTEGRATED STEREO AMPLIFIER**  
**SONY®**

## TABLE OF CONTENTS

| <u>Section</u>                                   | <u>Title</u> | <u>Page</u> |
|--------------------------------------------------|--------------|-------------|
| Specifications .....                             |              | 1           |
| Model Identification .....                       |              | 2           |
| <b>1. GENERAL</b> .....                          |              | 3           |
| <b>2. ELECTRICAL ADJUSTMENTS</b> .....           |              | 4           |
| <b>3. DIAGRAMS</b>                               |              |             |
| 3-1. Block Diagram .....                         |              | 5           |
| 3-2. IC701 Function Controller (M50761-291P) ... |              | 8           |
| 3-3. Printed Wiring Boards .....                 |              | 9           |
| 3-4. Schematic Diagram .....                     |              | 13          |
| <b>4. EXPLODED VIEWS</b> .....                   |              | 18          |
| <b>5. ELECTRICAL PARTS LIST</b> .....            |              | 20          |

## MODEL IDENTIFICATION

— Specification Label Printed on Back Panel —



AEP, Germany model: AC 220 -230 V ~50/60 Hz  
 Australian, UK model: AC 240 V ~50/60 Hz  
 E model: AC 120/220/240 V~50/60 Hz



### Note :

There are two type of AEP models which are depend on countries.

AEP2 model : Model for Scandinavian countries,  
 Switzerland, Spain and Portugal

AEP1 model : Model for other European countries

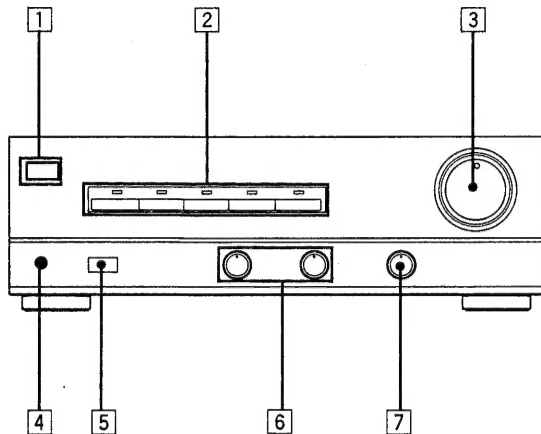
### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## SECTION 1 GENERAL

This section is extracted from instruction manual.

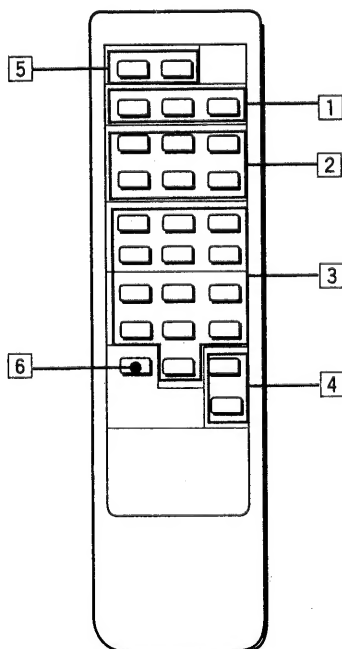
### Identifying the Parts and Controls



This section describes about each name of this amplifier and remote commander.

#### Front Panel

- ① POWER switch
- ② Function selectors and indicators
- ③ VOLUME control and indicator  
Adjusts the sound level.
- ④ HEADPHONES jack
- ⑤ Remote control sensor
- ⑥ TONE (BASS/TREBLE) controls
- ⑦ BALANCE control



#### Remote Commander

- ① TUNER operation buttons  
TUNER: Select the TUNER mode.  
PRESET +/- buttons: Select the preset station.
- ② CD operation buttons  
◀▶: Automatic music sensor.  
D. (Disc) SKIP: Disc skip (for CD player equipped with a multi-disc changer)  
▶: The amplifier enters the CD mode and the CD player starts playback automatically.  
■: Stop.  
⏸: Pause.
- ③ TAPE 2 DECK A/DECK B operation buttons  
◀▶: Fast winding.  
■: Stop.  
◀: The amplifier enters the TAPE 2 mode and the tape deck starts reverse playback automatically.  
▶: The amplifier enters the TAPE 2 mode and the tape deck starts forward playback automatically.  
●: Recording.  
⏸: Pause. (Only for DECK B)
- ④ VOL (Volume) +/- buttons
- ⑤ PHONO operation buttons  
START: Pressing START automatically selects the PHONO mode on the amplifier and starts playback of the turntable system.  
STOP: Stops playback of the turntable system.
- ⑥ DAT/TAPE 1 button  
Selects the DAT or TAPE 1 mode.

## SECTION 2

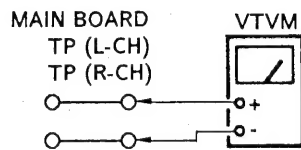
### ELECTRICAL ADJUSTMENTS

**Note :**

1. DC BIAS adjustments should be made within 2 to 3 minutes after the POWER switch is turned on (POWER ON).
2. After replacing the power transistors, DC BIAS adjustments should be made.

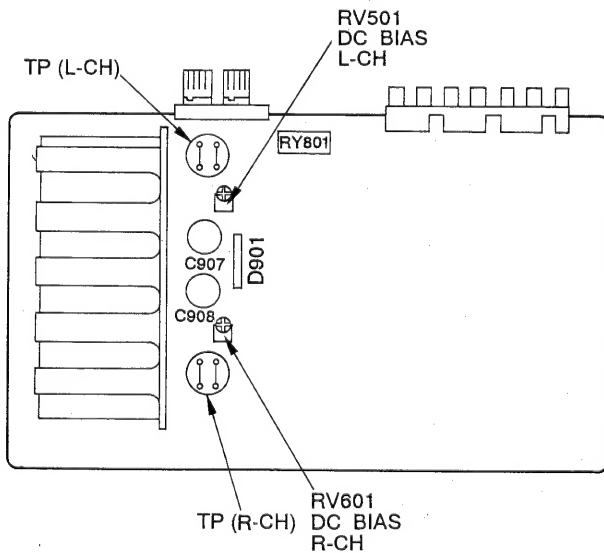
**DC Bias Adjustment (with no signal input)**

**Procedure :**



|      | Adjustment part | Reading on VTVM |
|------|-----------------|-----------------|
| L-CH | RV501           | 6.5mV           |
| R-CH | RV601           | 6.5mV           |

**[ADJUSTMENT LOCATIONS]**

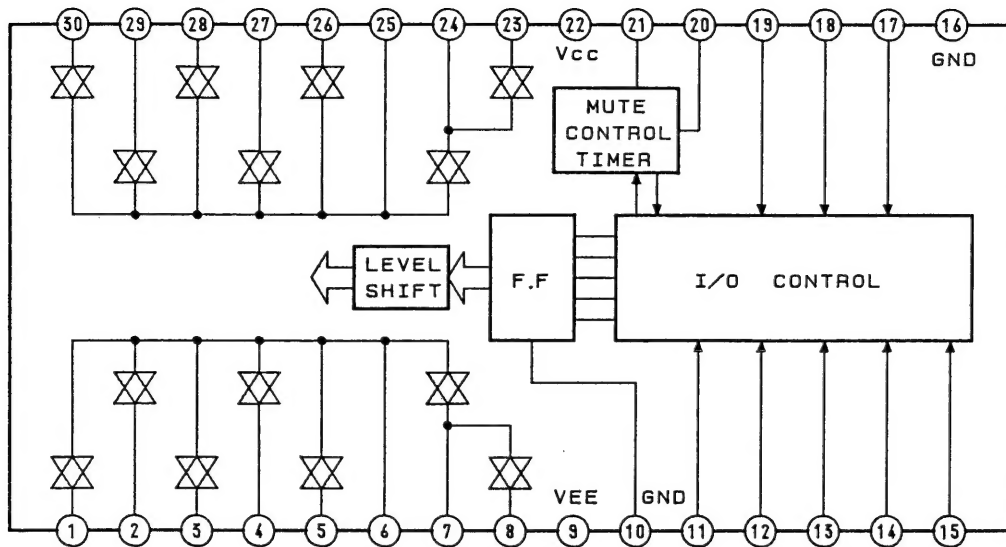


### 3-1. BLOCK DIAGRAM

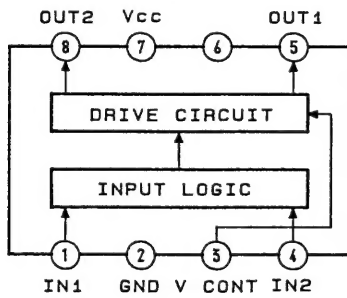


• IC BLOCK DIAGRAMS

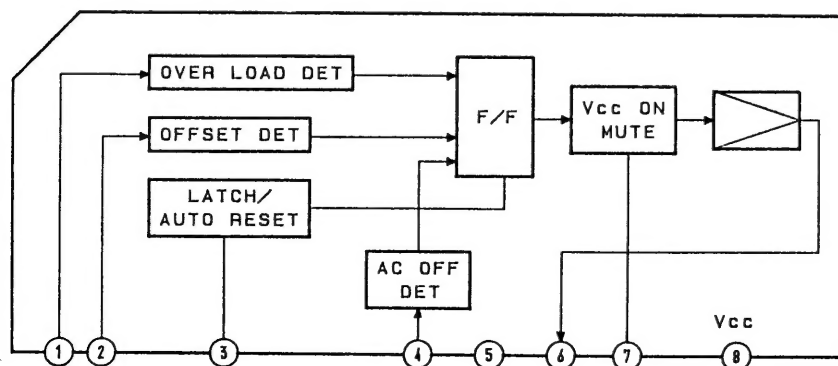
IC702 LC7818



IC703 LB1639



IC801 UPC1237HA

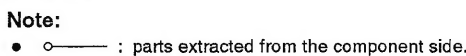


**3-2. IC701 FUNCTION CONTROLLER (M50761-291P).**

Micro Processor M50761-291P is used for control the volume up/down, function select and power on/standby by SIRCS code signal input and power on/standby key code signal input.

| Pin No. | Pin Name          | I / O | Description                                                                                                                                                                                      |  |                   |   |      |   |          |
|---------|-------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------|---|------|---|----------|
| 1       | PHONO             | O     | Function select output. (one-shot output) (L : PHONO)                                                                                                                                            |  |                   |   |      |   |          |
| 2       | CD                | O     | Function select output. (one-shot output) (L : CD)                                                                                                                                               |  |                   |   |      |   |          |
| 3       | AUX               | O     | Function select output. (one-shot output) (L : AUX)                                                                                                                                              |  |                   |   |      |   |          |
| 4       | CN VSS            | —     | Ground                                                                                                                                                                                           |  |                   |   |      |   |          |
| 5       | VSS               | —     | Ground                                                                                                                                                                                           |  |                   |   |      |   |          |
| 6       | TAPE1             | O     | Function select output. (one-shot output) (L : TAPE1)                                                                                                                                            |  |                   |   |      |   |          |
| 7       | TUNER             | O     | Function select output. (one-shot output) (L : TUNER)                                                                                                                                            |  |                   |   |      |   |          |
| 8       | POWER             | O     | Power supply ON/OFF relay (RY1) control output.<br>(L : POWER ON, H : POWER OFF)                                                                                                                 |  |                   |   |      |   |          |
| 9       | TAPE2             | O     | Function select output. (one-shot output) (L : TAPE2)                                                                                                                                            |  |                   |   |      |   |          |
| 10      | POWER IN          | I     | POWER ON/STANDBY key switch input.                                                                                                                                                               |  |                   |   |      |   |          |
| 11      | MODE              | I     | Mode select input. This model is used "L" level only. <div><table><tr><td></td><td>POWER ON/OFF mode</td></tr><tr><td>H</td><td>USED</td></tr><tr><td>L</td><td>NOT USED</td></tr></table></div> |  | POWER ON/OFF mode | H | USED | L | NOT USED |
|         | POWER ON/OFF mode |       |                                                                                                                                                                                                  |  |                   |   |      |   |          |
| H       | USED              |       |                                                                                                                                                                                                  |  |                   |   |      |   |          |
| L       | NOT USED          |       |                                                                                                                                                                                                  |  |                   |   |      |   |          |
| 12      | NC                | —     | Ground                                                                                                                                                                                           |  |                   |   |      |   |          |
| 13      | RESET             | I     | Reset signal input.                                                                                                                                                                              |  |                   |   |      |   |          |
| 14      | X OUT             | O     | Ceramic vibrator connection terminal. (400Hz)                                                                                                                                                    |  |                   |   |      |   |          |
| 15      | X IN              | O     | Ceramic vibrator connection terminal. (400Hz)                                                                                                                                                    |  |                   |   |      |   |          |
| 16      | NC                | —     | Ground                                                                                                                                                                                           |  |                   |   |      |   |          |
| 17      | SIRCS             | I     | SIRCS code signal input. (serial input)                                                                                                                                                          |  |                   |   |      |   |          |
| 18      | VOL UP            | O     | Volume motor up control output. (contineous output)                                                                                                                                              |  |                   |   |      |   |          |
| 19      | VOL DOWN          | O     | Volume motor down control output. (contineous output)                                                                                                                                            |  |                   |   |      |   |          |
| 20      | VDD               | —     | +5V power supply.                                                                                                                                                                                |  |                   |   |      |   |          |







## Semiconductor Location

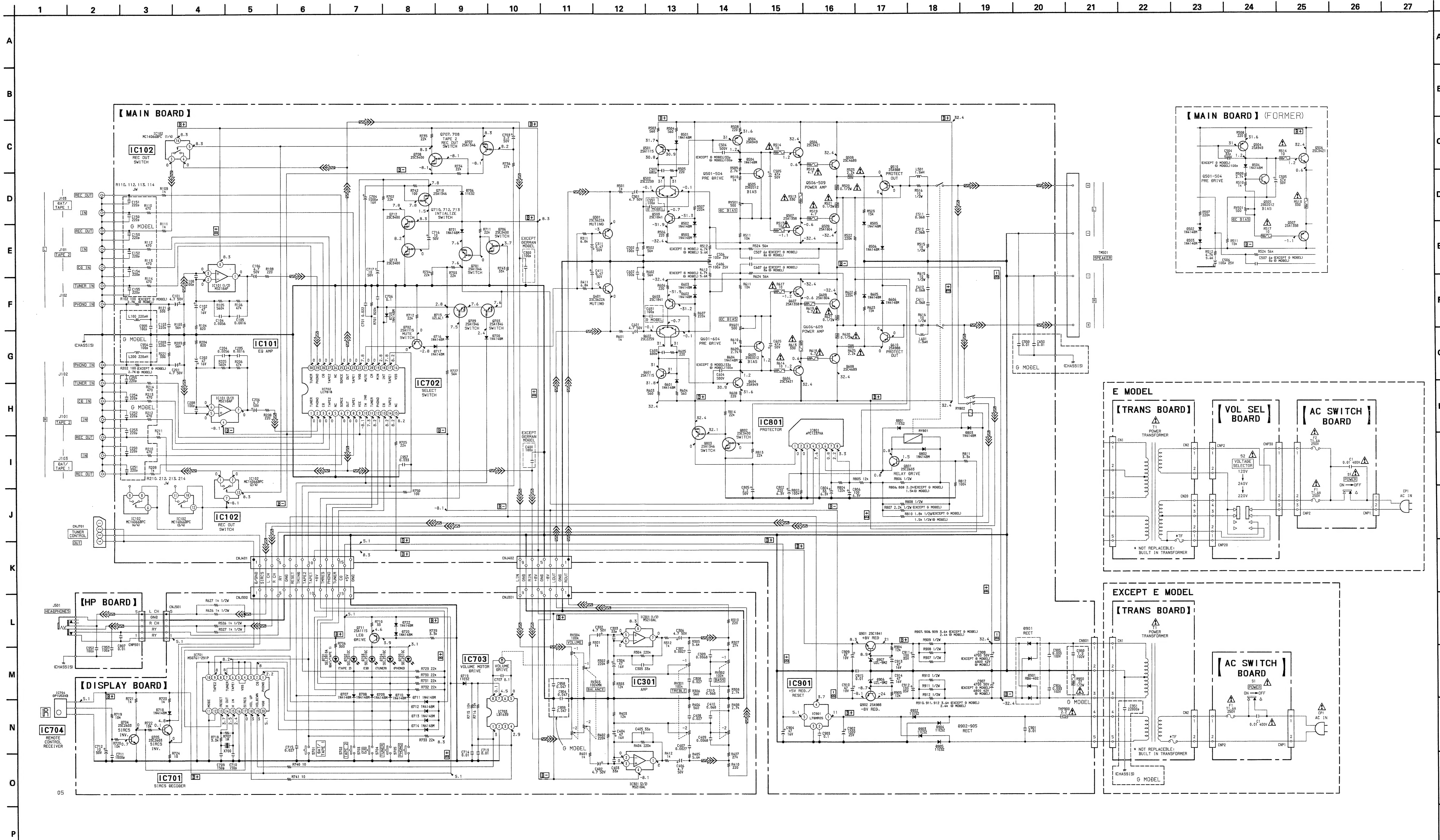
| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| D501     | G-6      | IC301    | H-20     |
| D502     | F-6      | IC701    | I-24     |
| D503     | F-6      | IC702    | D-5      |
| D504     | C-9      | IC703    | I-14     |
| D505     | B-10     | IC704    | I-27     |
| D506     | B-9      | IC901    | B-7      |
| D601     | H-7      | IC901    | I-10     |
| D602     | H-8      |          |          |
| D603     | H-8      | Q301     | H-5      |
| D604     | G-9      | Q401     | H-8      |
| D605     | H-10     | Q501     | G-6      |
| D606     | G-10     | Q502     | F-6      |
| D700     | G-27     | Q503     | F-6      |
| D701     | G-24     | Q504     | G-8      |
| D702     | G-25     | Q505     | D-10     |
| D703     | G-24     | Q506     | C-9      |
| D704     | G-22     | Q507     | D-9      |
| D705     | G-21     | Q508     | C-10     |
| D706     | E-4      | Q509     | E-10     |
| D707     | H-26     | Q510     | B-10     |
| D708     | H-23     | Q601     | H-7      |
| D709     | H-22     | Q602     | H-7      |
| D710     | H-21     | Q603     | G-7      |
| D711     | H-26     | Q604     | H-7      |
| D712     | H-23     | Q605     | F-10     |
| D713     | H-22     | Q606     | G-9      |
| D714     | H-21     | Q607     | F-9      |
| D715     | G-3      | Q608     | G-10     |
| D716     | G-3      | Q609     | F-10     |
| D717     | G-3      | Q610     | H-4      |
| D718     | J-25     | Q701     | F-9      |
| D719     | J-25     | Q702     | F-4      |
| D720     | G-26     | Q703     | G-4      |
| D721     | G-4      | Q704     | J-26     |
| D722     | H-26     | Q705     | I-26     |
| D723     | E-5      | Q706     | E-4      |
| D801     | C-7      | Q707     | D-6      |
| D802     | B-7      | Q708     | D-6      |
| D803     | D-7      | Q709     | G-4      |
| D804     | H-11     | Q710     | E-4      |
| D805     | H-11     | Q711     | C-26     |
| D806     | F-3      | Q802     | C-7      |
| D807     | F-2      | Q803     | C-6      |
| IC101    | C-2      | Q901     | F-2      |
| IC102    | C-6      | Q902     | F-3      |

## Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}$  W or less unless otherwise specified.
- $\square$ : nonflammable resistor.
- $\square$ : fusible resistor.

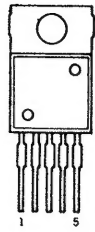
Note: The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

- $B+$ : B+ Line.
- $B-$ : B- Line.
- $\square$ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark: PHONO
- Voltages are taken with a VOM (10 MQ/V).
- Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\Rightarrow$ : PHONO



• SEMICONDUCTOR LEAD LAYOUTS

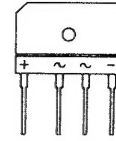
L78MR05



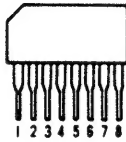
2SA1804-RO  
2SC4689-RO



RBA-402



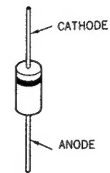
M5218AP  
μ PC1237HA



2SA949-OY  
2SA988-PAFAEA  
2SC1841-PAFAEA



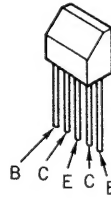
1N4148M



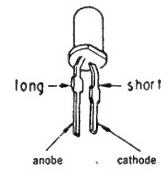
DTA124ES  
DTC124ES  
2SC2603-EF  
2SC3622A-LK



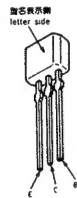
2SC2259-FG



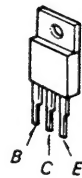
SEL3510C-CD  
SEL3810A-CD



2SA1175-HFE



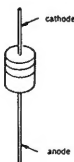
2SD2012



2SA1358-OY  
2SC3421-OY



HZS6A3L  
UZL-9M2  
UZL-9M3  
11ES2



## EXPLODED VIEWS



NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts  
Example:  
KNOB, BALANCE (WHITE) . . . (RED)  

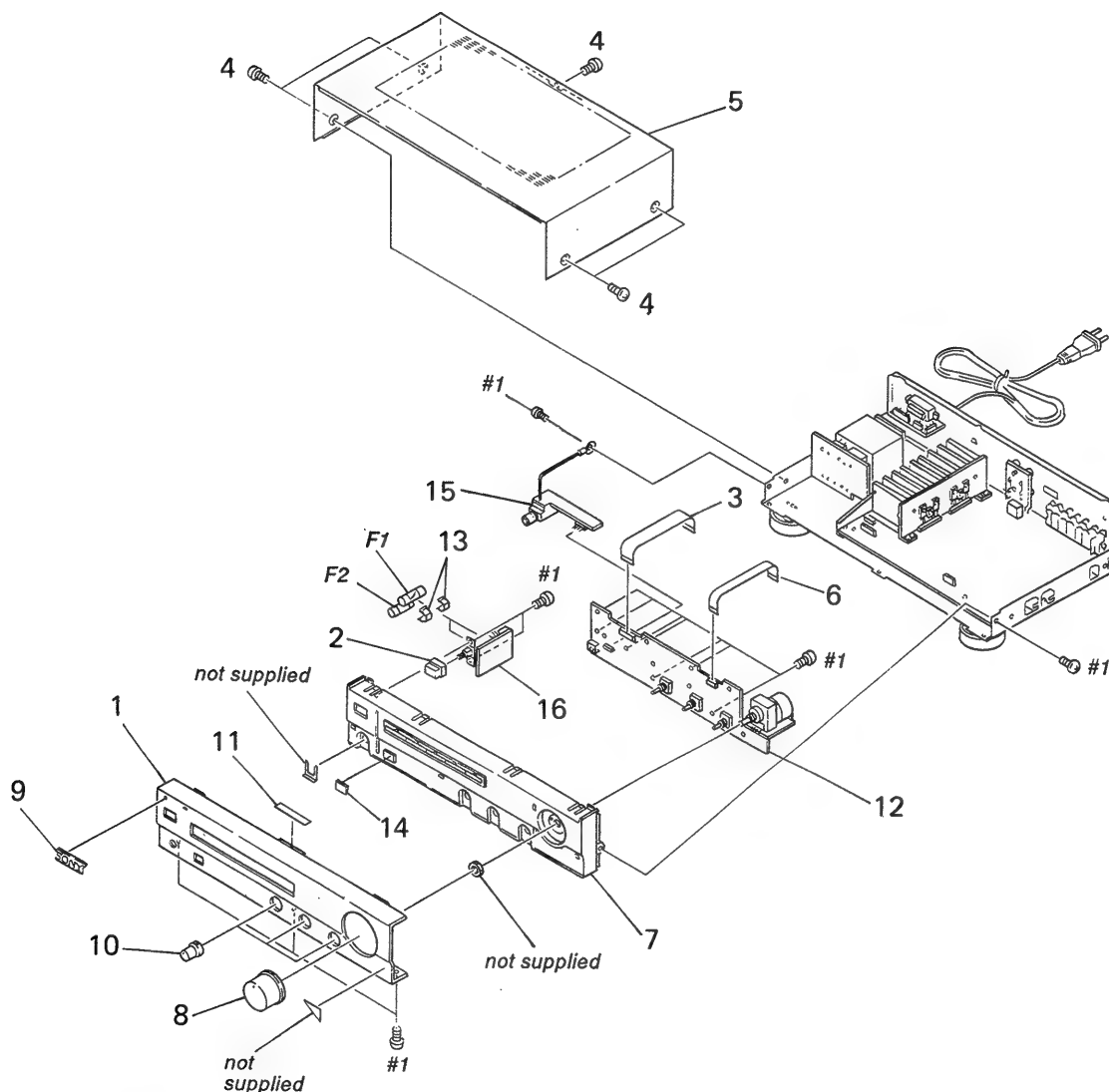
↑  
Parts Color

↑  
Cabinet's Color

- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

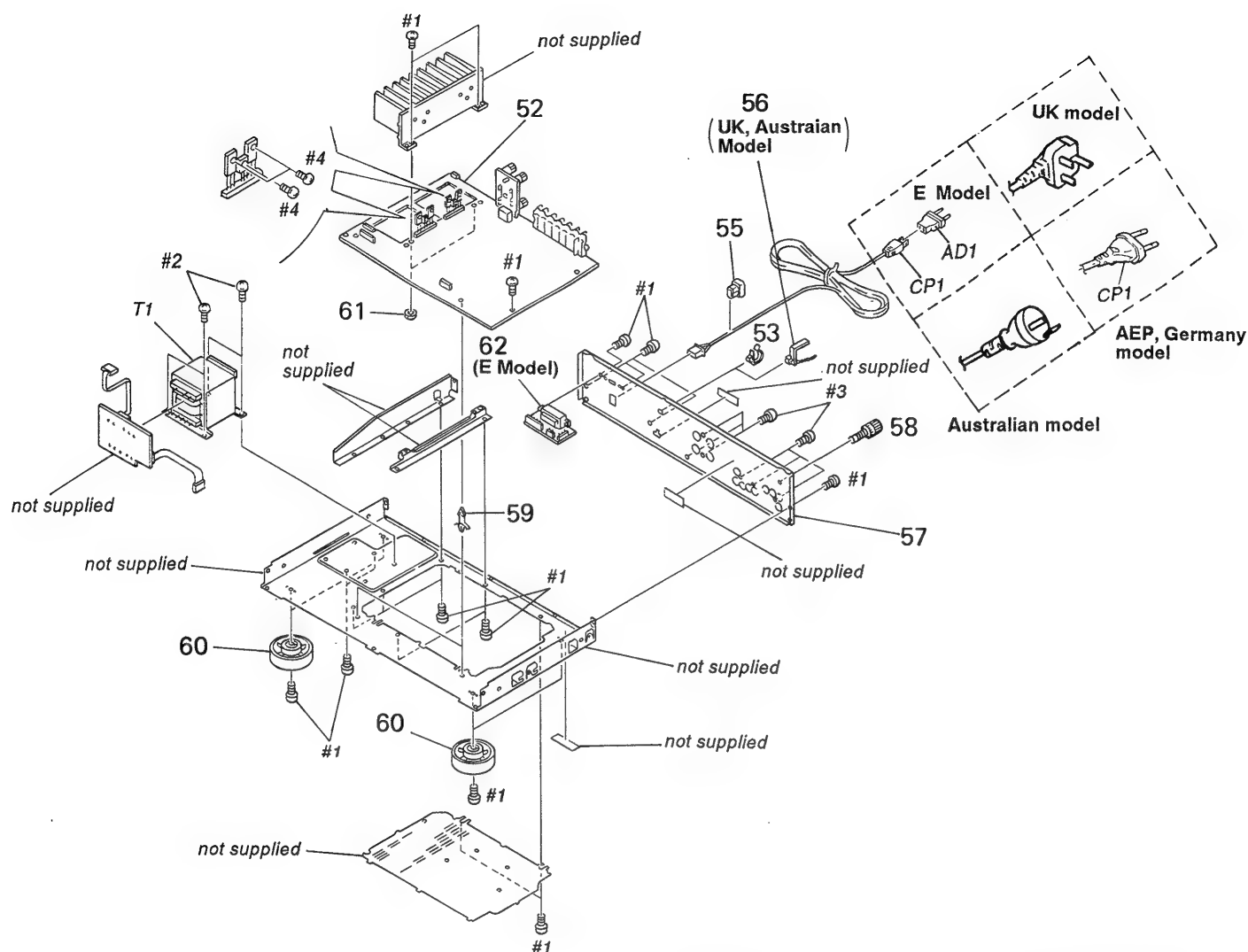
The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

**(1) FRONT PANEL SECTION**



| Ref. No. | Part No.     | Description                | Remark | Ref. No. | Part No.     | Description                                      | Remark |
|----------|--------------|----------------------------|--------|----------|--------------|--------------------------------------------------|--------|
| 1        | 4-958-635-01 | PANEL, FRONT               |        | 11       | 9-911-837-XX | CUSHION                                          |        |
| 2        | 4-917-460-01 | KNOB, POWER                |        | * 12     | A-4360-805-A | DISPLAY BOARD, COMPLETE (AEP, UK, E, AUSTRALIAN) |        |
| 3        | 1-751-432-11 | WIRE (FLAT TYPE) (17 CORE) |        | * 12     | A-4360-806-A | DISPLAY BOARD, COMPLETE (G)                      |        |
| 4        | 3-704-366-01 | SCREW (CASE) (M3X8)        |        | 13       | 1-533-293-11 | FUSE HOLDER                                      |        |
| * 5      | 4-937-817-11 | CASE                       |        |          |              |                                                  |        |
| 6        | 1-751-433-11 | WIRE (FLAT TYPE) (9 CORE)  |        | 14       | 4-931-911-01 | FILTER                                           |        |
| 7        | X-4943-696-1 | BASE ASSY, PANEL           |        | 15       | 1-648-229-11 | PC BOARD, HP                                     |        |
| 8        | X-4943-697-1 | KNOB ASSY                  |        | 16       | 1-648-226-11 | PC BOARD, AC SW                                  |        |
| 9        | 4-942-568-01 | EMBLEM (NO. 5), SONY       |        | △F1      | 1-532-285-00 | FUSE T1. 6A 250V                                 |        |
| 10       | 4-958-636-01 | KNOB                       |        | △F2      | 1-532-285-00 | FUSE T1. 6A 250V (E)                             |        |

## (2) CHASSIS SECTION



Note: The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

| Ref. No. | Part No. | Description                                                | Remark |
|----------|----------|------------------------------------------------------------|--------|
|          | 52       | A-4360-799-A MAIN BOARD, COMPLETE (AE1)                    |        |
| *        | 52       | A-4360-800-A MAIN BOARD, COMPLETE (AE2)                    |        |
| *        | 52       | A-4360-801-A MAIN BOARD, COMPLETE (G)                      |        |
| *        | 52       | A-4360-802-A MAIN BOARD, COMPLETE (UK)                     |        |
| *        | 52       | A-4360-803-A MAIN BOARD, COMPLETE (E)                      |        |
|          |          |                                                            |        |
| *        | 52       | A-4360-804-A MAIN BOARD, COMPLETE (AUSTRALIAN))            |        |
| *        | 53       | 4-949-235-01 HOOK (AEP, E, G)                              |        |
| *        | 55       | 3-703-244-00 BUSHING (2104), CORD (AEP, UK, G, AUSTRALIAN) |        |
| *        | 55       | 3-703-571-11 BUSHING (S) (4516), CORD (E)                  |        |
|          |          |                                                            |        |
|          | 56       | 4-956-370-02 BAND, PLUG FIXED (UK, AUSTRALIAN)             |        |
| *        | 57       | 4-958-640-01 PANEL, BACK (AE1)                             |        |
| *        | 57       | 4-958-640-11 PANEL, BACK (AE2)                             |        |
| *        | 57       | 4-958-640-21 PANEL, BACK (G)                               |        |
| *        | 57       | 4-958-640-31 PANEL, BACK (UK)                              |        |
|          |          |                                                            |        |
| *        | 57       | 4-958-640-41 PANEL, BACK (E)                               |        |

| Ref. No. | Part No. | Description                                      | Remark |
|----------|----------|--------------------------------------------------|--------|
| *        | 57       | 4-958-640-51 PANEL, BACK (AUSTRALIAN)            |        |
|          | 58       | 4-947-010-01 SCREW, FEEDER FIXED                 |        |
| *        | 59       | 3-346-265-11 HOLDER, PC BOARD                    |        |
|          | 60       | 4-943-148-42 FOOT (F58175SW)                     |        |
|          | 61       | 4-960-258-01 WASHER                              |        |
|          |          |                                                  |        |
|          | 62       | 1-648-227-11 PC BOARD, VOLSEL (E)                |        |
| $\Delta$ | AD1      | 1-569-007-11 ADAPTER, CONVERSION 2P (E)          |        |
| $\Delta$ | CP1      | 1-575-651-21 CORD, POWER (AEP, G)                |        |
| $\Delta$ | CP1      | 1-696-027-11 CORD, POWER (E)                     |        |
| $\Delta$ | CP1      | 1-696-586-11 CORD, POWER (UK)                    |        |
|          |          |                                                  |        |
| $\Delta$ | CP1      | 1-696-845-11 CORD, POWER (AUSTRALIAN)            |        |
| $\Delta$ | T1       | 1-423-676-11 TRANSFORMER, POWER (AEP)            |        |
| $\Delta$ | T1       | 1-423-677-11 TRANSFORMER, POWER (G)              |        |
| $\Delta$ | T1       | 1-423-678-11 TRANSFORMER, POWER (E)              |        |
| $\Delta$ | T1       | 1-423-681-11 TRANSFORMER, POWER (UK, AUSTRALIAN) |        |



# SECTION 5

## ELECTRICAL PARTS LIST

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u:  $\mu$ , for example:  
uA...:  $\mu$ A... uPA...:  $\mu$ PA...  
uPB...:  $\mu$ PB... uPC...:  $\mu$ PC... uPD...:  $\mu$ PD...
- CAPACITORS  
uF:  $\mu$ F
- COILS  
uH:  $\mu$ H
- G: German

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

| Ref. No.    | Part No.     | Description                                     | Remark  |
|-------------|--------------|-------------------------------------------------|---------|
| *           | 1-648-226-11 | AC SW BOARD<br>*****                            |         |
|             |              | < CAPACITOR >                                   |         |
| $\Delta$ C1 | 1-161-744-00 | CERAMIC 0.01uF                                  | 400V    |
|             |              | < CONNECTOR >                                   |         |
| * CNP1      | 1-580-230-31 | PIN, CONNECTOR (PC BOARD) 2P                    |         |
| CNP2        | 1-564-321-00 | PIN, CONNECTOR 2P (AEP, UK, G, AUSTRALIAN)      |         |
| CNP2        | 1-564-687-11 | PIN, CONNECTOR 3P (E)                           |         |
|             |              | < FUSE >                                        |         |
| $\Delta$ F1 | 1-532-285-00 | FUSE T1.6A 250V                                 |         |
| $\Delta$ F2 | 1-532-285-00 | FUSE T1.6A 250V (E)                             |         |
|             |              | < SWITCH >                                      |         |
| $\Delta$ S1 | 1-572-267-51 | SWITCH, PUSH (AC POWER) (1 KEY)                 |         |
| *****       |              |                                                 |         |
|             | A-4360-805-A | DISPLAY BOARD, COMPLETE (AEP, UK, E AUSTRALIAN) |         |
|             |              | *****                                           |         |
|             | A-4360-806-A | DISPLAY BOARD, COMPLETE (G)                     |         |
|             |              | *****                                           |         |
| *           | 1-533-293-11 | FUSE HOLDER                                     |         |
| *           | 1-690-880-31 | LEAD (WITH CONNECTOR) (G)                       |         |
|             |              | < CAPACITOR >                                   |         |
| C302        | 1-123-369-00 | ELECT 4.7uF                                     | 20% 50V |
| C303        | 1-162-211-31 | CERAMIC 33PF                                    | 5% 50V  |
| C304        | 1-123-306-00 | ELECT 47uF                                      | 20% 10V |
| C305        | 1-162-211-31 | CERAMIC 33PF                                    | 5% 50V  |
| C306        | 1-123-369-00 | ELECT 4.7uF                                     | 20% 50V |
| C307        | 1-130-476-00 | MYLAR 0.0027uF                                  | 5% 50V  |

| Ref. No. | Part No.     | Description            | Remark     |
|----------|--------------|------------------------|------------|
| C308     | 1-130-488-00 | MYLAR 0.027uF          | 5% 50V     |
| C309     | 1-130-481-00 | MYLAR 0.0068uF         | 5% 50V     |
| C310     | 1-130-493-00 | MYLAR 0.068uF          | 5% 50V     |
| C402     | 1-123-369-00 | ELECT 4.7uF            | 20% 50V    |
| C403     | 1-162-211-31 | CERAMIC 33PF           | 5% 50V     |
| C404     | 1-123-306-00 | ELECT 47uF             | 20% 10V    |
| C405     | 1-162-211-31 | CERAMIC 33PF           | 5% 50V     |
| C406     | 1-123-369-00 | ELECT 4.7uF            | 20% 50V    |
| C407     | 1-130-476-00 | MYLAR 0.0027uF         | 5% 50V     |
| C408     | 1-130-488-00 | MYLAR 0.027uF          | 5% 50V     |
| C409     | 1-130-481-00 | MYLAR 0.0068uF         | 5% 50V     |
| C410     | 1-130-493-00 | MYLAR 0.068uF          | 5% 50V     |
| C707     | 1-164-159-11 | CERAMIC 0.1uF          | 50V        |
| C709     | 1-162-284-31 | CERAMIC 150PF          | 10% 50V    |
| C710     | 1-162-284-31 | CERAMIC 150PF          | 10% 50V    |
| C711     | 1-162-294-31 | CERAMIC 0.001uF        | 10% 50V    |
| C712     | 1-124-907-11 | ELECT 10uF             | 20% 50V    |
| C713     | 1-162-294-31 | CERAMIC 0.001uF        | 10% 50V    |
| C714     | 1-162-294-31 | CERAMIC 0.001uF        | 10% 50V    |
| C715     | 1-130-488-00 | MYLAR 0.027uF          | 5% 50V     |
| C951     | 1-164-097-11 | CERAMIC 0.022uF        | 50V (G)    |
| C954     | 1-136-161-00 | FILM 0.047uF           | 5% 50V (G) |
| C958     | 1-136-161-00 | FILM 0.047uF           | 5% 50V (G) |
| C959     | 1-136-161-00 | FILM 0.047uF           | 5% 50V (G) |
|          |              | < CONNECTOR >          |            |
| CNJ300   | 1-750-234-11 | CONNECTOR, FFC/FPC 17P |            |
| CNJ301   | 1-750-586-11 | CONNECTOR, FFC/FPC 9P  |            |
|          |              | < DIODE >              |            |
| D701     | 8-719-313-72 | LED SEL3810A-CD        |            |
| D702     | 8-719-018-46 | LED SEL3510C-CD        |            |
| D703     | 8-719-018-46 | LED SEL3510C-CD        |            |
| D704     | 8-719-018-46 | LED SEL3510C-CD        |            |
| D705     | 8-719-018-46 | LED SEL3510C-CD        |            |
| D707     | 8-719-987-63 | DIODE 1N4148M          |            |

| Ref. No.       | Part No.     | Description            | Remark |
|----------------|--------------|------------------------|--------|
| D708           | 8-719-987-63 | DIODE 1N4148M          |        |
| D712           | 8-719-987-63 | DIODE 1N4148M          |        |
| D709           | 8-719-987-63 | DIODE 1N4148M          |        |
| D710           | 8-719-987-63 | DIODE 1N4148M          |        |
| D711           | 8-719-987-63 | DIODE 1N4148M          |        |
| D713           | 8-719-987-63 | DIODE 1N4148M          |        |
| D714           | 8-719-987-63 | DIODE 1N4148M          |        |
| D718           | 8-719-987-63 | DIODE 1N4148M          |        |
| D719           | 8-719-200-82 | DIODE 11ES2            |        |
| D720           | 8-719-987-63 | DIODE 1N4148M          |        |
| D722           | 8-719-987-63 | DIODE 1N4148M          |        |
| < IC >         |              |                        |        |
| IC301          | 8-759-634-50 | IC M5218AL             |        |
| IC701          | 8-759-077-08 | IC M50761-291P         |        |
| IC703          | 8-759-820-62 | IC LB1639              |        |
| IC704          | 8-749-923-43 | IC GP1U57XB            |        |
| < TRANSISTOR > |              |                        |        |
| Q704           | 8-729-620-05 | TRANSISTOR 2SC2603-EF  |        |
| Q705           | 8-729-620-05 | TRANSISTOR 2SC2603-EF  |        |
| Q711           | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |        |
| < RESISTOR >   |              |                        |        |
| R301           | 1-259-428-11 | CARBON 1K 5% 1/6W      |        |
| R302           | 1-259-484-11 | CARBON 220K 5% 1/6W    |        |
| R303           | 1-259-454-11 | CARBON 12K 5% 1/6W     |        |
| R304           | 1-259-484-11 | CARBON 220K 5% 1/6W    |        |
| R305           | 1-259-446-11 | CARBON 5.6K 5% 1/6W    |        |
| R306           | 1-259-422-11 | CARBON 560 5% 1/6W     |        |
| R307           | 1-259-462-11 | CARBON 27K 5% 1/6W     |        |
| R308           | 1-259-438-11 | CARBON 2.7K 5% 1/6W    |        |
| R310           | 1-259-412-11 | CARBON 220 5% 1/6W     |        |
| R312           | 1-259-428-11 | CARBON 1K 5% 1/6W      |        |
| R401           | 1-259-428-11 | CARBON 1K 5% 1/6W      |        |
| R402           | 1-259-484-11 | CARBON 220K 5% 1/6W    |        |
| R403           | 1-259-454-11 | CARBON 12K 5% 1/6W     |        |
| R404           | 1-259-484-11 | CARBON 220K 5% 1/6W    |        |
| R405           | 1-259-446-11 | CARBON 5.6K 5% 1/6W    |        |
| R406           | 1-259-422-11 | CARBON 560 5% 1/6W     |        |
| R407           | 1-259-462-11 | CARBON 27K 5% 1/6W     |        |
| R408           | 1-259-438-11 | CARBON 2.7K 5% 1/6W    |        |
| R410           | 1-259-412-11 | CARBON 220 5% 1/6W     |        |
| R412           | 1-259-428-11 | CARBON 1K 5% 1/6W      |        |
| R526           | 1-247-752-11 | CARBON 1K 5% 1/2W      |        |
| R527           | 1-247-752-11 | CARBON 1K 5% 1/2W      |        |
| R626           | 1-247-752-11 | CARBON 1K 5% 1/2W      |        |
| R627           | 1-247-752-11 | CARBON 1K 5% 1/2W      |        |
| R706           | 1-247-818-11 | CARBON 300 5% 1/4W     |        |

| Ref. No.              | Part No.     | Description                 | Remark |
|-----------------------|--------------|-----------------------------|--------|
| R707                  | 1-247-903-00 | CARBON 1M 5% 1/4W           |        |
| R710                  | 1-249-399-11 | CARBON 33 5% 1/4W F         |        |
| R715                  | 1-249-429-11 | CARBON 10K 5% 1/4W          |        |
| R716                  | 1-249-429-11 | CARBON 10K 5% 1/4W          |        |
| R718                  | 1-249-423-11 | CARBON 3.3K 5% 1/4W F       |        |
| R719                  | 1-249-429-11 | CARBON 10K 5% 1/4W          |        |
| R720                  | 1-249-429-11 | CARBON 10K 5% 1/4W          |        |
| R721                  | 1-249-417-11 | CARBON 1K 5% 1/4W F         |        |
| R722                  | 1-249-429-11 | CARBON 10K 5% 1/4W          |        |
| R723                  | 1-249-417-11 | CARBON 1K 5% 1/4W F         |        |
| R724                  | 1-249-393-11 | CARBON 10 5% 1/4W F         |        |
| R729                  | 1-249-433-11 | CARBON 22K 5% 1/4W          |        |
| R730                  | 1-249-433-11 | CARBON 22K 5% 1/4W          |        |
| R731                  | 1-249-433-11 | CARBON 22K 5% 1/4W          |        |
| R732                  | 1-249-433-11 | CARBON 22K 5% 1/4W          |        |
| R733                  | 1-249-433-11 | CARBON 22K 5% 1/4W          |        |
| R739                  | 1-249-423-11 | CARBON 3.3K 5% 1/4W F       |        |
| R740                  | 1-249-393-11 | CARBON 10 5% 1/4W F         |        |
| R741                  | 1-249-393-11 | CARBON 10 5% 1/4W F         |        |
| < VARIABLE RESISTOR > |              |                             |        |
| RV301                 | 1-223-397-11 | RES, VAR, CARBON 100K/100K  |        |
| RV302                 | 1-223-397-11 | RES, VAR, CARBON 100K/100K  |        |
| RV303                 | 1-223-396-11 | RES, VAR, CARBON 100K/100K  |        |
| RV304                 | 1-223-395-11 | RES, VAR, CARBON 100K/100K  |        |
| < SWITCH >            |              |                             |        |
| S701                  | 1-554-303-21 | SWITCH, TACTILE (DAT/TAPE1) |        |
| S702                  | 1-554-303-21 | SWITCH, TACTILE (TAPE2)     |        |
| S703                  | 1-554-303-21 | SWITCH, TACTILE (CD)        |        |
| S704                  | 1-554-303-21 | SWITCH, TACTILE (TUNER)     |        |
| S705                  | 1-554-303-21 | SWITCH, TACTILE (PHONO)     |        |
| < VIBRATOR >          |              |                             |        |
| X700                  | 1-577-077-21 | OSCILLATOR, CERAMIC         |        |
| *****                 |              |                             |        |
| *                     | 1-648-229-11 | HP BOARD                    |        |
| *****                 |              |                             |        |
| < CAPACITOR >         |              |                             |        |
| C807                  | 1-136-153-00 | FILM 0.01uF 5% 50V          |        |
| C952                  | 1-162-282-31 | CERAMIC 100PF 10% 50V       |        |
| C953                  | 1-162-282-31 | CERAMIC 100PF 10% 50V       |        |
| < CONNECTOR >         |              |                             |        |
| CNP501                | 1-506-906-11 | PIN, CONNECTOR 5P           |        |

# MAIN

| Ref. No. | Part No.                 | Description                       | Remark |
|----------|--------------------------|-----------------------------------|--------|
|          |                          | < JACK >                          |        |
| J501     | 1-563-347-11             | JACK, LARGE TYPE (HEADPHONES)     |        |
| *****    |                          |                                   |        |
|          | A-4360-799-A             | MAIN BOARD, COMPLETE (AE1)        |        |
|          | *****                    |                                   |        |
| *        | A-4360-800-A             | MAIN BOARD, COMPLETE (AE2)        |        |
|          | *****                    |                                   |        |
| *        | A-4360-802-A             | MAIN BOARD, COMPLETE (UK)         |        |
|          | *****                    |                                   |        |
| *        | A-4360-801-A             | MAIN BOARD, COMPLETE (G)          |        |
|          | *****                    |                                   |        |
| *        | A-4360-804-A             | MAIN BOARD, COMPLETE (AUSTRALIAN) |        |
|          | *****                    |                                   |        |
|          | 1-648-230-11             | MAIN BOARD                        |        |
|          | 7-685-647-79             | SCREW +BVTP 3X10 TYPE2 IT-3       |        |
|          |                          | < CAPACITOR >                     |        |
| C101     | 1-123-369-00             | ELECT 4.7uF 20% 50V               |        |
| C102     | 1-124-910-11             | ELECT 47uF 20% 50V                |        |
| C103     | 1-164-077-11             | CERAMIC 220PF 10% 50V             |        |
| C104     | 1-130-480-00             | MYLAR 0.0056uF 5% 50V             |        |
| C105     | 1-104-842-91             | MYLAR 0.0016uF 5% 50V             |        |
| C106     | 1-123-369-00             | ELECT 4.7uF 20% 50V               |        |
| C108     | 1-164-073-11             | CERAMIC 100PF 10% 50V             |        |
| C150     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C151     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C152     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C153     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C154     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C155     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C201     | 1-123-369-00             | ELECT 4.7uF 20% 50V               |        |
| C202     | 1-124-910-11             | ELECT 47uF 20% 50V                |        |
| C203     | 1-164-077-11             | CERAMIC 220PF 10% 50V             |        |
| C204     | 1-130-480-00             | MYLAR 0.0056uF 5% 50V             |        |
| C205     | 1-104-842-91             | MYLAR 0.0016uF 5% 50V             |        |
| C206     | 1-123-369-00             | ELECT 4.7uF 20% 50V               |        |
| C208     | 1-164-073-11             | CERAMIC 100PF 10% 50V             |        |
| C250     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C251     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C252     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C253     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C254     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C255     | 1-162-286-31             | CERAMIC 220PF 10% 50V (G)         |        |
| C300     | 1-164-073-11             | CERAMIC 100PF 10% 50V             |        |
|          | (AEP, UK, E, AUSTRALIAN) |                                   |        |
| C311     | 1-124-902-00             | ELECT 0.47uF 20% 50V              |        |
| C400     | 1-164-073-11             | CERAMIC 100PF 10% 50V             |        |
|          | (AEP, UK, E, AUSTRALIAN) |                                   |        |

| Ref. No. | Part No.                 | Description               | Remark |
|----------|--------------------------|---------------------------|--------|
| C411     | 1-124-902-00             | ELECT 0.47uF 20% 50V      |        |
| C501     | 1-123-369-00             | ELECT 4.7uF 20% 50V       |        |
| C502     | 1-164-073-11             | CERAMIC 100PF 10% 50V     |        |
| C503     | 1-164-083-11             | CERAMIC 680PF 10% 50V     |        |
| C504     | 1-101-810-00             | CERAMIC 100PF 5% 500V (G) |        |
| C504     | 1-102-233-00             | CERAMIC 33PF 10% 500V     |        |
|          | (AEP, UK, E, AUSTRALIAN) |                           |        |
| C505     | 1-124-910-11             | ELECT 47uF 20% 50V        |        |
| C506     | 1-124-122-11             | ELECT 100uF 20% 16V       |        |
| C507     | 1-102-943-00             | CERAMIC 6.0PF +-0.5PF 50V |        |
|          | (AEP, UK, E, AUSTRALIAN) |                           |        |
| C507     | 1-164-044-11             | CERAMIC 8PF 0.5PF 50V (G) |        |
| C511     | 1-136-163-00             | FILM 0.068uF 5% 50V       |        |
| C512     | 1-136-163-00             | FILM 0.068uF 5% 50V       |        |
| C550     | 1-136-153-00             | FILM 0.01uF 5% 50V (G)    |        |
| C551     | 1-162-282-31             | CERAMIC 100PF 10% 50V (G) |        |
| C601     | 1-123-369-00             | ELECT 4.7uF 20% 50V       |        |
| C602     | 1-164-073-11             | CERAMIC 100PF 10% 50V     |        |
| C603     | 1-164-083-11             | CERAMIC 680PF 10% 50V     |        |
| C604     | 1-101-810-00             | CERAMIC 100PF 5% 500V (G) |        |
| C604     | 1-102-233-00             | CERAMIC 33PF 10% 500V     |        |
|          | (AEP, UK, E, AUSTRALIAN) |                           |        |
| C605     | 1-124-910-11             | ELECT 47uF 20% 50V        |        |
| C606     | 1-124-122-11             | ELECT 100uF 20% 16V       |        |
| C607     | 1-102-943-00             | CERAMIC 6.0PF +-0.5PF 50V |        |
|          | (AEP, UK, E, AUSTRALIAN) |                           |        |
| C607     | 1-164-044-11             | CERAMIC 8PF 0.5PF 50V (G) |        |
| C611     | 1-136-163-00             | FILM 0.068uF 5% 50V       |        |
| C612     | 1-136-163-00             | FILM 0.068uF 5% 50V       |        |
| C650     | 1-136-153-00             | FILM 0.01uF 5% 50V (G)    |        |
| C651     | 1-162-282-31             | CERAMIC 100PF 10% 50V (G) |        |
| C701     | 1-161-494-00             | CERAMIC 0.022uF 25V       |        |
| C703     | 1-124-925-11             | ELECT 2.2uF 20% 100V      |        |
| C704     | 1-126-926-11             | ELECT 1000uF 20% 10V      |        |
| C706     | 1-164-159-11             | CERAMIC 0.1uF 50V         |        |
| C716     | 1-124-907-11             | ELECT 10uF 20% 50V        |        |
| C717     | 1-124-907-11             | ELECT 10uF 20% 50V        |        |
| C802     | 1-126-176-11             | ELECT 220uF 20% 10V       |        |
| C804     | 1-124-034-51             | ELECT 33uF 20% 16V        |        |
| C805     | 1-124-925-11             | ELECT 2.2uF 20% 100V      |        |
| C806     | 1-124-443-00             | ELECT 100uF 20% 10V       |        |
| C901     | 1-136-153-00             | FILM 0.01uF 5% 50V        |        |
| C902     | 1-124-557-11             | ELECT 1000uF 20% 25V      |        |
| C903     | 1-136-165-00             | FILM 0.1uF 5% 50V         |        |
| C904     | 1-123-306-00             | ELECT 47uF 20% 10V        |        |
| C905     | 1-106-379-12             | MYLAR 0.033uF 5% 200V     |        |
| C906     | 1-106-379-12             | MYLAR 0.033uF 5% 200V     |        |
| C907     | 1-104-836-11             | ELECT 4700uF 20% 50V      |        |
|          | (AEP, UK, E, AUSTRALIAN) |                           |        |

| Ref. No. | Part No.     | Description              | Remark      |
|----------|--------------|--------------------------|-------------|
| C907     | 1-104-837-11 | ELECT 6800uF             | 20% 42V (G) |
| C908     | 1-104-836-11 | ELECT 4700uF             | 20% 50V     |
|          |              | (AEP, UK, E, AUSTRALIAN) |             |
| C908     | 1-104-837-11 | ELECT 6800uF             | 20% 42V (G) |
| C909     | 1-123-306-00 | ELECT 47uF               | 20% 10V     |
| C910     | 1-123-306-00 | ELECT 47uF               | 20% 10V     |
| C911     | 1-124-122-11 | ELECT 100uF              | 20% 50V     |
| C912     | 1-124-122-11 | ELECT 100uF              | 20% 50V     |
| C913     | 1-123-306-00 | ELECT 47uF               | 20% 10V     |
| C914     | 1-123-306-00 | ELECT 47uF               | 20% 10V     |
| C915     | 1-136-153-00 | FILM 0.01uF              | 5% 50V      |
| C950     | 1-130-789-00 | FILM 1uF                 | 5% 100V (G) |
| C955     | 1-164-073-11 | CERAMIC 100PF            | 10% 50V (G) |
| C956     | 1-164-073-11 | CERAMIC 100PF            | 10% 50V (G) |
| C957     | 1-106-379-12 | MYLAR 0.033uF            | 5% 200V     |

## &lt; CONNECTOR &gt;

|        |              |                        |
|--------|--------------|------------------------|
| CNJ401 | 1-750-227-11 | CONNECTOR, FFC/FPC 17P |
| CNJ402 | 1-750-598-11 | CONNECTOR, FFC/FPC 9P  |
| CNJ701 | 1-566-213-11 | PIN, CONNECTOR 4P      |
| CNP801 | 1-564-242-00 | PIN, CONNECTOR 5P      |

## &lt; DIODE &gt;

|      |              |               |
|------|--------------|---------------|
| D501 | 8-719-987-63 | DIODE 1N4148M |
| D502 | 8-719-987-63 | DIODE 1N4148M |
| D503 | 8-719-987-63 | DIODE 1N4148M |
| D504 | 8-719-987-63 | DIODE 1N4148M |
| D505 | 8-719-987-63 | DIODE 1N4148M |
| D506 | 8-719-987-63 | DIODE 1N4148M |
| D601 | 8-719-987-63 | DIODE 1N4148M |
| D602 | 8-719-987-63 | DIODE 1N4148M |
| D603 | 8-719-987-63 | DIODE 1N4148M |
| D604 | 8-719-987-63 | DIODE 1N4148M |
| D605 | 8-719-987-63 | DIODE 1N4148M |
| D606 | 8-719-987-63 | DIODE 1N4148M |
| D700 | 8-719-987-63 | DIODE 1N4148M |
| D706 | 8-719-200-82 | DIODE 11ES2   |
| D715 | 8-719-933-35 | DIODE HZS6A3L |
| D716 | 8-719-987-63 | DIODE 1N4148M |
| D717 | 8-719-987-63 | DIODE 1N4148M |
| D721 | 8-719-987-63 | DIODE 1N4148M |
| D723 | 8-719-987-63 | DIODE 1N4148M |
| D801 | 8-719-200-82 | DIODE 11ES2   |
| D802 | 8-719-987-63 | DIODE 1N4148M |
| D803 | 8-719-987-63 | DIODE 1N4148M |
| D901 | 8-719-312-09 | DIODE RBA-402 |
| D902 | 8-719-200-82 | DIODE 11ES2   |
| D903 | 8-719-200-82 | DIODE 11ES2   |
| D904 | 8-719-200-82 | DIODE 11ES2   |

| Ref. No. | Part No.     | Description   | Remark |
|----------|--------------|---------------|--------|
| D905     | 8-719-200-82 | DIODE 11ES2   |        |
| D906     | 8-719-001-15 | DIODE UZL-9M2 |        |
| D907     | 8-719-001-18 | DIODE UZL-9M3 |        |
|          |              | < IC >        |        |
| IC101    | 8-759-634-51 | IC M5218AP    |        |
| IC102    | 8-759-000-49 | IC MC14066BPC |        |
| IC702    | 8-759-802-52 | IC LC7818     |        |
| IC801    | 8-759-111-68 | IC uPC1237HA  |        |
| IC901    | 8-759-820-84 | IC L78MR05    |        |
|          |              | < JACK >      |        |
| J101     | 1-566-883-81 | JACK, PIN 6P  |        |
| J102     | 1-566-882-51 | JACK, PIN 4P  |        |
| J103     | 1-566-882-51 | JACK, PIN 4P  |        |

## &lt; COIL &gt;

|        |              |                       |
|--------|--------------|-----------------------|
| L100   | 1-410-979-11 | INDUCTOR 220uH (G)    |
| L200   | 1-410-979-11 | INDUCTOR 220uH (G)    |
| * L501 | 1-420-872-00 | COIL, AIR CORE 1.9uHz |
| * L601 | 1-420-872-00 | COIL, AIR CORE 1.9uHz |

## &lt; TRANSISTOR &gt;

|      |              |                           |
|------|--------------|---------------------------|
| Q301 | 8-729-141-26 | TRANSISTOR 2SC3622A-LK    |
| Q401 | 8-729-141-26 | TRANSISTOR 2SC3622A-LK    |
| Q501 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE    |
| Q502 | 8-729-620-17 | TRANSISTOR 2SC2259-FG     |
| Q503 | 8-729-140-84 | TRANSISTOR 2SC1841-PAFAEA |
| Q504 | 8-729-021-74 | TRANSISTOR 2SA949-OY-TPE6 |
| Q505 | 8-729-209-15 | TRANSISTOR 2SD2012        |
| Q506 | 8-729-020-82 | TRANSISTOR 2SC3421-OY     |
| Q507 | 8-729-020-83 | TRANSISTOR 2SA1358-OY     |
| Q508 | 8-729-021-75 | TRANSISTOR 2SC4689-RO     |
| Q509 | 8-729-021-76 | TRANSISTOR 2SA1804-RO     |
| Q510 | 8-729-140-82 | TRANSISTOR 2SA988-PAFAEA  |
| Q601 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE    |
| Q602 | 8-729-620-17 | TRANSISTOR 2SC2259-FG     |
| Q603 | 8-729-140-84 | TRANSISTOR 2SC1841-PAFAEA |
| Q604 | 8-729-021-74 | TRANSISTOR 2SA949-OY-TPE6 |
| Q605 | 8-729-209-15 | TRANSISTOR 2SD2012        |
| Q606 | 8-729-020-82 | TRANSISTOR 2SC3421-OY     |
| Q607 | 8-729-020-83 | TRANSISTOR 2SA1358-OY     |
| Q608 | 8-729-021-75 | TRANSISTOR 2SC4689-RO     |
| Q609 | 8-729-021-76 | TRANSISTOR 2SA1804-RO     |
| Q610 | 8-729-140-82 | TRANSISTOR 2SA988-PAFAEA  |
| Q701 | 8-729-900-63 | TRANSISTOR DTA124ES       |
| Q702 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE    |
| Q703 | 8-729-900-63 | TRANSISTOR DTA124ES       |
| Q706 | 8-729-900-36 | TRANSISTOR DTC124ES       |



# MAIN

| Ref. No.     | Part No.     | Description                                    | Remark |
|--------------|--------------|------------------------------------------------|--------|
| Q707         | 8-729-900-63 | TRANSISTOR DTA124ES                            |        |
| Q708         | 8-729-900-36 | TRANSISTOR DTC124ES                            |        |
| Q709         | 8-729-900-63 | TRANSISTOR DTA124ES                            |        |
| Q710         | 8-729-900-63 | TRANSISTOR DTA124ES                            |        |
| Q712         | 8-729-900-36 | TRANSISTOR DTC124ES                            |        |
| Q713         | 8-729-900-36 | TRANSISTOR DTC124ES                            |        |
| Q801         | 8-729-620-05 | TRANSISTOR 2SC2603-EF                          |        |
| Q802         | 8-729-900-36 | TRANSISTOR DTC124ES                            |        |
| Q803         | 8-729-900-63 | TRANSISTOR DTA124ES                            |        |
| Q901         | 8-729-140-84 | TRANSISTOR 2SC1841-PAFAEA                      |        |
| Q902         | 8-729-140-82 | TRANSISTOR 2SA988-PAFAEA                       |        |
| < RESISTOR > |              |                                                |        |
| R102         | 1-247-700-11 | CARBON 100 5% 1/4W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R102         | 1-247-718-11 | CARBON 2.7K 5% 1/4W (G)                        |        |
| R103         | 1-249-466-11 | CARBON 56K 5% 1/4W                             |        |
| R104         | 1-247-712-11 | CARBON 820 5% 1/4W                             |        |
| R105         | 1-214-958-00 | METAL 560K 1% 1/4W                             |        |
| R106         | 1-249-465-11 | CARBON 47K 5% 1/4W                             |        |
| R108         | 1-247-704-11 | CARBON 220 5% 1/4W                             |        |
| R109         | 1-247-713-11 | CARBON 1K 5% 1/4W F                            |        |
| R110         | 1-247-708-11 | CARBON 470 5% 1/4W (G)                         |        |
| R111         | 1-247-713-11 | CARBON 1K 5% 1/4W F                            |        |
| R112         | 1-247-708-11 | CARBON 470 5% 1/4W (G)                         |        |
| R113         | 1-247-708-11 | CARBON 470 5% 1/4W (G)                         |        |
| R114         | 1-247-708-11 | CARBON 470 5% 1/4W (G)                         |        |
| R121         | 1-247-706-11 | CARBON 330 5% 1/4W F                           |        |
| R202         | 1-247-700-11 | CARBON 100 5% 1/4W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R202         | 1-247-718-11 | CARBON 2.7K 5% 1/4W (G)                        |        |
| R203         | 1-249-466-11 | CARBON 56K 5% 1/4W                             |        |
| R204         | 1-247-712-11 | CARBON 820 5% 1/4W                             |        |
| R205         | 1-214-958-00 | METAL 560K 1% 1/4W                             |        |
| R206         | 1-249-465-11 | CARBON 47K 5% 1/4W                             |        |
| R208         | 1-247-704-11 | CARBON 220 5% 1/4W                             |        |
| R209         | 1-247-713-11 | CARBON 1K 5% 1/4W F                            |        |
| R210         | 1-247-708-11 | CARBON 470 5% 1/4W (G)                         |        |
| R211         | 1-247-713-11 | CARBON 1K 5% 1/4W F                            |        |
| R212         | 1-247-708-11 | CARBON 470 5% 1/4W (G)                         |        |
| R213         | 1-247-708-11 | CARBON 470 5% 1/4W (G)                         |        |
| R214         | 1-247-708-11 | CARBON 470 5% 1/4W (G)                         |        |
| R221         | 1-247-706-11 | CARBON 330 5% 1/4W F                           |        |
| R311         | 1-249-427-11 | CARBON 6.8K 5% 1/4W F                          |        |
| R411         | 1-249-427-11 | CARBON 6.8K 5% 1/4W F                          |        |
| R501         | 1-247-713-11 | CARBON 1K 5% 1/4W F                            |        |
| R502         | 1-249-466-11 | CARBON 56K 5% 1/4W                             |        |
| R503         | 1-247-710-11 | CARBON 560 5% 1/4W                             |        |
| R504         | 1-247-710-11 | CARBON 560 5% 1/4W                             |        |
| R505         | 1-247-704-11 | CARBON 220 5% 1/4W                             |        |

| Ref. No. | Part No.     | Description                                     | Remark |
|----------|--------------|-------------------------------------------------|--------|
| R506     | 1-247-704-11 | CARBON 220 5% 1/4W                              |        |
| R507     | 1-247-887-00 | CARBON 220K 5% 1/4W                             |        |
| R508     | 1-247-704-11 | CARBON 220 5% 1/4W                              |        |
| R509     | 1-247-718-11 | CARBON 2.7K 5% 1/4W                             |        |
| R510     | 1-247-713-11 | CARBON 1K 5% 1/4W F                             |        |
| R511     | 1-247-725-11 | CARBON 10K 5% 1/4W                              |        |
| R512     | 1-247-721-11 | CARBON 4.7K 5% 1/4W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R512     | 1-247-722-11 | CARBON 5.6K 5% 1/4W (G)                         |        |
| △R513    | 1-212-893-00 | FUSIBLE 330 5% 1/4W F                           |        |
| △R514    | 1-212-857-00 | FUSIBLE 10 5% 1/4W F                            |        |
| R515     | 1-247-727-11 | CARBON 10 5% 1/2W                               |        |
| R516     | 1-247-727-11 | CARBON 10 5% 1/2W                               |        |
| △R517    | 1-212-857-00 | FUSIBLE 10 5% 1/4W F                            |        |
| △R518    | 1-212-849-00 | FUSIBLE 4.7 5% 1/4W F                           |        |
| △R519    | 1-212-849-00 | FUSIBLE 4.7 5% 1/4W F                           |        |
| △R520    | 1-217-611-00 | RES, METAL PLATE 0.1 2W                         |        |
| △R521    | 1-217-611-00 | RES, METAL PLATE 0.1 2W                         |        |
| R522     | 1-247-887-00 | CARBON 220K 5% 1/4W                             |        |
| R523     | 1-249-431-11 | CARBON 15K 5% 1/4W                              |        |
| R524     | 1-249-466-11 | CARBON 56K 5% 1/4W                              |        |
| △R525    | 1-249-421-11 | CARBON 2.2K 5% 1/4W F                           |        |
| R601     | 1-247-713-11 | CARBON 1K 5% 1/4W F                             |        |
| R602     | 1-249-466-11 | CARBON 56K 5% 1/4W                              |        |
| R603     | 1-247-710-11 | CARBON 560 5% 1/4W                              |        |
| R604     | 1-247-710-11 | CARBON 560 5% 1/4W                              |        |
| R605     | 1-247-704-11 | CARBON 220 5% 1/4W                              |        |
| R606     | 1-247-704-11 | CARBON 220 5% 1/4W                              |        |
| R607     | 1-247-887-00 | CARBON 220K 5% 1/4W                             |        |
| R608     | 1-247-704-11 | CARBON 220 5% 1/4W                              |        |
| R609     | 1-247-718-11 | CARBON 2.7K 5% 1/4W                             |        |
| R610     | 1-247-713-11 | CARBON 1K 5% 1/4W F                             |        |
| R611     | 1-247-725-11 | CARBON 10K 5% 1/4W                              |        |
| R612     | 1-247-721-11 | CARBON 4.7K 5% 1/4W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R612     | 1-247-722-11 | CARBON 5.6K 5% 1/4W (G)                         |        |
| △R613    | 1-212-893-00 | FUSIBLE 330 5% 1/4W F                           |        |
| △R614    | 1-212-857-00 | FUSIBLE 10 5% 1/4W F                            |        |
| R615     | 1-247-727-11 | CARBON 10 5% 1/2W                               |        |
| R616     | 1-247-727-11 | CARBON 10 5% 1/2W                               |        |
| △R617    | 1-212-857-00 | FUSIBLE 10 5% 1/4W F                            |        |
| △R618    | 1-212-849-00 | FUSIBLE 4.7 5% 1/4W F                           |        |
| △R619    | 1-212-849-00 | FUSIBLE 4.7 5% 1/4W F                           |        |
| △R620    | 1-217-611-00 | RES, METAL PLATE 0.1 2W                         |        |
| △R621    | 1-217-611-00 | RES, METAL PLATE 0.1 2W                         |        |
| R622     | 1-247-887-00 | CARBON 220K 5% 1/4W                             |        |
| R623     | 1-249-431-11 | CARBON 15K 5% 1/4W                              |        |
| R624     | 1-249-466-11 | CARBON 56K 5% 1/4W                              |        |
| △R625    | 1-249-421-11 | CARBON 2.2K 5% 1/4W F                           |        |

The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.

MAIN

TRANS

VOL SEL

| Ref. No. | Part No.     | Description                                     | Remark |
|----------|--------------|-------------------------------------------------|--------|
| R701     | 1-247-901-11 | CARBON 820K 5% 1/4W                             |        |
| R702     | 1-249-433-11 | CARBON 22K 5% 1/4W                              |        |
| R703     | 1-249-433-11 | CARBON 22K 5% 1/4W                              |        |
| R704     | 1-249-433-11 | CARBON 22K 5% 1/4W                              |        |
| R705     | 1-249-433-11 | CARBON 22K 5% 1/4W                              |        |
| R711     | 1-249-433-11 | CARBON 22K 5% 1/4W                              |        |
| R712     | 1-249-433-11 | CARBON 22K 5% 1/4W                              |        |
| R727     | 1-249-438-11 | CARBON 56K 5% 1/4W                              |        |
| R734     | 1-249-433-11 | CARBON 22K 5% 1/4W                              |        |
| R735     | 1-249-433-11 | CARBON 22K 5% 1/4W                              |        |
| R736     | 1-249-434-11 | CARBON 27K 5% 1/4W                              |        |
| R742     | 1-249-405-11 | CARBON 100 5% 1/4W F                            |        |
| R743     | 1-249-435-11 | CARBON 33K 5% 1/4W                              |        |
| R750     | 1-249-405-11 | CARBON 100K 5% 1/4W                             |        |
| R802     | 1-249-441-11 | CARBON 100K 5% 1/4W                             |        |
| R804     | 1-247-881-00 | CARBON 120K 5% 1/4W                             |        |
| R805     | 1-249-430-11 | CARBON 12K 5% 1/4W                              |        |
| R806     | 1-247-754-11 | CARBON 1.5K 5% 1/2W (G)                         |        |
| R806     | 1-247-756-11 | CARBON 2.2K 5% 1/2W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R807     | 1-247-754-11 | CARBON 1.5K 5% 1/2W (G)                         |        |
| R807     | 1-247-756-11 | CARBON 2.2K 5% 1/2W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R808     | 1-247-754-11 | CARBON 1.5K 5% 1/2W (G)                         |        |
| R808     | 1-247-756-11 | CARBON 2.2K 5% 1/2W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R810     | 1-247-754-11 | CARBON 1.5K 5% 1/2W (G)                         |        |
| R810     | 1-247-755-11 | CARBON 1.8K 5% 1/2W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R811     | 1-249-423-11 | CARBON 3.3K 5% 1/4W F                           |        |
| R812     | 1-249-441-11 | CARBON 100K 5% 1/4W                             |        |
| R813     | 1-249-433-11 | CARBON 22K 5% 1/4W                              |        |
| R814     | 1-249-433-11 | CARBON 22K 5% 1/4W                              |        |
| R904     | 1-249-459-11 | CARBON 12K 5% 1/4W                              |        |
| R905     | 1-249-459-11 | CARBON 12K 5% 1/4W                              |        |
| R907     | 1-247-249-00 | CARBON 2.4K 5% 1/2W (G)                         |        |
| R907     | 1-247-253-00 | CARBON 3.6K 5% 1/2W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R908     | 1-247-249-00 | CARBON 2.4K 5% 1/2W (G)                         |        |
| R908     | 1-247-253-00 | CARBON 3.6K 5% 1/2W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R909     | 1-247-249-00 | CARBON 2.4K 5% 1/2W (G)                         |        |
| R909     | 1-247-253-00 | CARBON 3.6K 5% 1/2W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R910     | 1-247-249-00 | CARBON 2.4K 5% 1/2W (G)                         |        |
| R910     | 1-247-253-00 | CARBON 3.6K 5% 1/2W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R911     | 1-247-249-00 | CARBON 2.4K 5% 1/2W (G)                         |        |

| Ref. No.        | Part No.     | Description                                     | Remark |
|-----------------|--------------|-------------------------------------------------|--------|
| R911            | 1-247-253-00 | CARBON 3.6K 5% 1/2W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R912            | 1-247-249-00 | CARBON 2.4K 5% 1/2W (G)                         |        |
| R912            | 1-247-253-00 | CARBON 3.6K 5% 1/2W<br>(AEP, UK, E, AUSTRALIAN) |        |
| R950            | 1-247-732-11 | CARBON 27 5% 1/2W (G)<br>< VARIABLE RESISTOR >  |        |
| RV501           | 1-237-455-11 | RES, ADJ, CARBON 500                            |        |
| RV601           | 1-237-455-11 | RES, ADJ, CARBON 500<br>< RELAY >               |        |
| RY801           | 1-515-920-11 | RELAY (24V)                                     |        |
| RY802           | 1-515-793-11 | RELAY<br>< THERMISTOR(POSITIVE) >               |        |
| △THP900         | 1-806-882-11 | THERMISTOR, POSITIVE 2.2<br>< TERMINAL >        |        |
| TM501           | 1-537-530-11 | TERMINAL BOARD (G)                              |        |
| TM501           | 1-537-530-21 | TERMINAL BOARD (AE1, UK, E, AUSTRALIAN)         |        |
| TM501           | 1-537-530-31 | TERMINAL BOARD (AE2)                            |        |
| *****           |              |                                                 |        |
| *               | 1-648-228-11 | TRANS BOARD<br>*****<br>< CAPACITOR >           |        |
| C951            | 1-164-097-11 | CERAMIC 0.022uF 50V (G)                         |        |
| < TRANSFORMER > |              |                                                 |        |
| △T1             | 1-423-676-11 | TRANSFORMER, POWER (AEP)                        |        |
| △T1             | 1-423-677-11 | TRANSFORMER, POWER (G)                          |        |
| △T1             | 1-423-678-11 | TRANSFORMER, POWER (E)                          |        |
| △T1             | 1-423-681-11 | TRANSFORMER, POWER (UK, AUSTRALIAN)             |        |
| *****           |              |                                                 |        |
|                 | 1-648-227-11 | VOL SEL BOARD (E)<br>*****<br>< CONNECTOR >     |        |
| CNP10           | 1-564-321-00 | PIN, CONNECTOR 2P                               |        |
| CNP20           | 1-568-106-11 | PIN, CONNECTOR 4P                               |        |
| CNP30           | 1-564-687-11 | PIN, CONNECTOR 3P<br>< SWITCH >                 |        |
| △S2             | 1-572-009-11 | SELECTOR, VOLTAGE (VOLTAGE SELECTOR)            |        |
| *****           |              |                                                 |        |

The components identified by  
mark △ or dotted line with mark.  
△ are critical for safety.  
Replace only with part number  
specified.

| Ref. No. | Part No. | Description | Remark |
|----------|----------|-------------|--------|
|----------|----------|-------------|--------|

## MISCELLANEOUS

\*\*\*\*\*

|      |              |                            |  |
|------|--------------|----------------------------|--|
| △AD1 | 1-569-007-11 | ADAPTER, CONVERSION 2P (E) |  |
| △CP1 | 1-575-651-21 | CORD, POWER (AEP, G)       |  |
| △CP1 | 1-696-027-11 | CORD, POWER (E)            |  |
| △CP1 | 1-696-586-11 | CORD, POWER (UK)           |  |
| △CP1 | 1-696-845-11 | CORD, POWER (AUSTRALIAN)   |  |

\*\*\*\*\*

## ACCESSORIES &amp; PACKING MATERIALS

\*\*\*\*\*

|   |              |                                                                                        |  |
|---|--------------|----------------------------------------------------------------------------------------|--|
|   | 1-467-107-11 | REMOTE COMMANDER (RM-S312)                                                             |  |
|   | 3-756-853-11 | MANUAL, INSTRUCTION (English, French,<br>Spanish, Portuguese) (AEP, UK, E, AUSTRALIAN) |  |
|   | 3-756-853-41 | MANUAL, INSTRUCTION (German, Dutch,<br>Swedish, Italian) (AEP)                         |  |
|   | 3-756-853-51 | MANUAL, INSTRUCTION (German) (G)                                                       |  |
| * | 4-931-988-71 | INDIVIDUAL CARTON                                                                      |  |
|   | 4-941-762-11 | COVER (MLY), BATTERY                                                                   |  |
| * | 4-959-584-01 | CUSHION                                                                                |  |

\*\*\*\*\*

## \*\*\*\*\*

## HARDWARE LIST

\*\*\*\*\*

|    |              |                             |
|----|--------------|-----------------------------|
| #1 | 7-685-646-79 | SCREW +BTP 3X8 TYPE2 N-S    |
| #2 | 7-682-560-04 | SCREW +BVTT 4X6 (S)         |
| #3 | 7-621-849-00 | SCREW (BV/RING)             |
| #4 | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 IT-3 |

The components identified by  
mark △ or dotted line with mark.  
△ are critical for safety.  
Replace only with part number  
specified.